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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,109	03/23/2004	Masatsugu Masuda	0951-0132P	1859
2292	7590	11/03/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LOUIE, WAI SING	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,109

Applicant(s)

MASUDA ET AL.

Examiner

Wai-Sing Louie

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 and 29-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election without traverse of Species I, claims 1-13 and 20-28, in the reply filed on 10/12/05, is acknowledged. Therefore, the restriction is final. It is suggested that non-elected claims 14-19 and 29-31 be canceled in the response to this Office Action.
2. The PTO-1449 form is missing in the file. Please resubmit the form in the response to this Office Action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-13, and 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapointe et al. (US 6,100,478) in view of Srivastava et al. (US 6,469,322).

With regard to claims 1 and 24, Lapointe et al. disclose an electroluminescent keypad (col. 3, line 42 to col. 7, line 67 and fig. 2), comprising:

- At least one light source 19, in which light of the light source is guided and emitted from an operation member 15 having translucent properties via an optical

waveguide 17. Although, elastomeric sheet 17 does not specifically state that is a waveguide. However, since elastomeric sheet 17 is made of translucent rubbery material (col. 3, lines 59-63), which is opaque and transmits light, as the claimed structure, it is clear, that such a structure results in the transmitting light as a waveguide and is thus an inherent feature of the claimed semiconductor device.

- Lapointe et al. disclose a phosphor 31 in the light source 19 and is contained in a path through which the light of the light source 19 is guided (col. 5, lines 20-25), but do not disclose the light source 19 is emitting visible light by being excited by the phosphor. However, Srivastava et al. disclose the light emitted by a GaN-based semiconductor LED 32 be converted by a phosphor material 24 into white light (Srivastava co 4, lines 5-20). Srivastava et al. teach the phosphor material could improve the intensity and adjust the color of the light emitted (Srivastava col. 4, lines 28-30). Therefore, it would have been obvious to one of ordinary skill in the art to modify Lapointe's device with the teaching of Srivastava et al. to provide the phosphor material to convert the light emitted by the light source to visible light in order to improve the intensity and adjust the color of the light emitted.

With regard to claims 2, 5, and 27, Lapointe et al. disclose the operating member 15 is constituted by a plurality of keytops and the phosphor is contained in the plurality of keytops (fig. 1).

With regard to claim 3, Lapointe et al. disclose the phosphor 31 is contained in a vicinity of the light source 19 (col. 5, lines 20-25).

With regard to claims 4, 6, and 8, Lapointe modified by Srivastava et al. disclose the phosphor is contained by a plurality of types of phosphor that emit light with different colors each other (Srivastava col. 4, lines 8-18).

With regard to claims 9, 12, and 26, Lapointe et al. disclose the light source 19 is a LED (col. 5, lines 20-25).

With regard to claims 10, 13, and 28, Lapointe et al. disclose the electronic equipment 11 is a mobile phone (col. 3, line 52).

With regard to claim 11, Lapointe et al. disclose the plurality of keytops 15 and the optical waveguide 17 are integrated into one piece (fig. 1 and 2). The integrated piece of keytop 15 and waveguide 17 is configured to be removable with respect to a main body 13 of the electronic equipment 11 (fig. 1).

With regard to claims 20-23, these claims is based on the non-elected species, therefore, will not be examined.

With regard to claim 25, Lapointe modified by Srivastava et al. disclose the light source emits blue/UV light, where the wavelength is about 320-380 nm (Srivastava col. 3, lines 3-12). Since the applicant has not established the criticality of wavelength stated and since these wavelengths are in common use in similar devices in the art, it would have been obvious to one of ordinary skill in the art to use these values in the device. Where patentability is said to be based upon particular chosen dimension or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lapointe et al. (US 6,100,478) modified by Srivastava et al. (US 6,469,322) as applied to claim 1 above, and further in view of Chien (US 5,752,337).

With regard to claim 7, Lapointe et al. modified by Srivastava et al. do not disclose the plurality of types of phosphors are arranged such that patterns, designs, letters symbols or an arbitrary combination that can be recognized with their light with the different colors. However, Chien discloses a multi-color electroluminescent panel having a message display 37, where the letters have different color (Chien col. 4, lines 45-54). Chien teaches the multi-color electroluminescent panel obtains a desire lighting effect by increasing the flexibility of colorings, patterns, and special effects (Chien col. 2, lines 3-8). Hence, it would have been obvious at the time the invention was made to modify Lapointe's device with the teaching of Srivastava et al. and Chien to provide a multi-color patterns on the letters in order to obtain a desire lighting effect by increasing the flexibility of colorings, patterns, and special effects.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is (571) 272-1709. The examiner can normally be reached on 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wsl

October 28, 2005.

A handwritten signature in black ink, appearing to be 'Wsl', is written over the typed name 'Wsl'.